**HomeWork 22**

**Due Monday 7 December**

**Your name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_/11**

**1a) Draw the Lewis structure for O3 that obeys the octet rule. Show lone pairs !**

**1b) Will O3 exhibit resonance ? Yes No (circle answer)**

**2) Draw the best structure for ClO3- , POCl3 and SO2  that minimizes formal charge.**

**Show lone pairs !! (3 pts)**

**ClO3- POCl3 SO2**

**3) What are the geometries for the molecules in problem 2 predicted by VSEPR**

**theory , and, what is the computed bond order for each molecule ? ( 6 pts)**

**geometric shape bond order**

**ClO3- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_**

**POCl3  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_**

**SO2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_**